CLAIMS

1. An expression vector, comprising a DNA segment encoding a signal peptide of a protein which is normally expressed and secreted by human cells, joined to a DNA segment encoding intracellular IL-1 receptor antagonist type II (icIL-1ra-II) and operably linked to a promoter sequence, wherein said icIL-1ra-II is expressed from said promoter sequence and translated with said signal peptide fused in frame to icIL-1ra-II.

2. An expression vector in accordance with claim 1, wherein said signal peptide is human growth hormone signal peptide.

3. A host cell transformed with the expression vector of claim 1.

4. A host cell transformed with the expression vector of claim 2.

5. A host cell in accordance with claim 3, wherein said cell is an endogenous cell of a human host.

6. A host cell in accordance with claim 4, wherein said cell is an endogenous cell of a human host.

7. A method for producing a recombinant icIL-1ra-II comprising the steps of:

culturing a host cell according to claim 3 to express and produce a recombinant glycosylated icIL-1ra-II;

recovering the produced recombinant glycosylated icIL-1ra-II.

8. A method for producing a recombinant icIL-1ra-II comprising the steps of:

culturing a host cell according to claim 4 to express and produce a recombinant glycosylated icIL-1ra-II;

recovering the produced recombinant glycosylated icIL-1ra-II.

9. A glycosylated icIL-1ra-II produced by a method according to claim

10. The glycosylated icIL-1ra-II according to claim 9 having an apparent molecular weight of about 27 kDa on SDS-PAGE under reducing conditions with 15% acrylamide.

11. The glycosylated icIL-1ra-II according to claim 9 having an apparent molecular weight of about 30 kDa on SDS-PAGE under reducing conditions with 15% acrylamide.

12. A pharmaceutical composition, comprising the glycosylated icIL-1ra-II according to claim 9 in a therapeutically effective amount and a pharmaceutically acceptable excipient.

13. A method for reducing the amount of IL-1 in a patient having a condition associated with overexpression of IL-1, comprising administering the pharmaceutical composition according to claim 12 to a patient in need thereof.

14. A method for reducing the amount of IL-1 at a desired site in a human patient, comprising introducing a vector in accordance with claim 3 into appropriate endogenous human cells at the desired site to produce transformed cells which will express icIL-1ra-II at the desired site.

15. A method for reducing the amount of IL-1 at a desired site in a human patient, comprising introducing a vector in accordance with claim 4 into appropriate endogenous human cells at the desired site to produce transformed cells which will express icIL-1ra-II at the desired site.

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